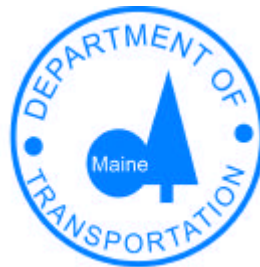




Management of Performance Based Budgeting

MDOT's Experience With Project Management
&
Activity Based Costing Systems





Management of Performance Based Budgeting

- **In Large Complex Environments, It Is Not Enough To Manage Outputs & Outcomes**
 - ◆ **Need To Manage Resources, i.e. People, Assets & Dollars**
 - ◆ **Requires The Ability To Plan, Forecast, Measure, Report & Analyze**
 - ◆ **MDOT Uses Project Management & Activity Based Costing Systems**



Management of Performance Based Budgeting

■ MDOT Core Systems:

- **Media -- Invoice & Payroll Transactions**
 - ▶ Coding: Project, Activity, Unit & Location
- **Projstat/Promis -- Project Mgmt & Federal Pmts**
 - ▶ Multiple Funding Options
- **Tinis -- Infrastructure Inventory & History**
 - ▶ Accidents, Traffic Counts, Pavement Types, etc.
- **Crew Payroll & Personnel**
 - ▶ FTE Environment



Management of Performance Based Budgeting

■ Core Systems Issues:

- '70's Legacy Mainframe Based
 - ▶ Information Availability & User Needs
 - ▶ Isolation of Data Bases
 - ▶ Increases In Complexity
 - ▶ Maintenance & Updates
 - ▶ Programmer Dependent (SAS)
- Program Management Capabilities Inadequate
 - ▶ Multiple Funding



Management of Performance Based Budgeting

- Core Systems Issues:
 - Definition & Growth Of Codes
 - ▶ 2×10^{12} vs. 135K/Yr
 - ▶ Coding \neq Control
 - ▶ PIN's vs. Activities vs. C&O's
 - ▶ Cultural & Ownership Biases
(Engineers, Crew, Finance)



Management of Performance Based Budgeting

■ Resolution Plan:

● ISSC (Information System Steering Committee)

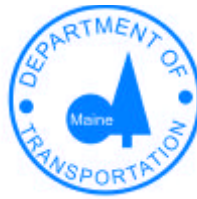
- ▶ Established Fall '95
- ▶ Senior Management
- ▶ Policies & Plans
- ▶ All Resource Allocations



Management of Performance Based Budgeting

■ Resolution Plan:

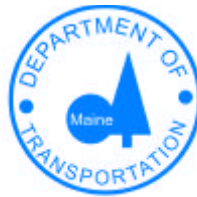
- **FACT: Data Warehouse (Fall '96):**
 - ▶ Projstat/Promis, Media, Crew Payroll
 - ▶ Budget Data & Organizational Structure
 - ▶ Ad Hoc Query & Analytical Capabilities
 - ▶ 400 GQL Users, Active User Group
 - ▶ Adaptive To Future Systems & Management Needs



Management of Performance Based Budgeting

■ Resolution Plan:

- **TIDE: GIS Linked Data Warehouse (Fall '98)**
 - ▶ Tinis, Pavement & Bridge Management, Project History
 - ▶ Fit Existing Linear Databases Within Oracle Environment
 - ▶ Ad Hoc Query, Analytical & Mapping Capabilities
 - ▶ Provides Visual Performance Tracking
 - ▶ Major Communications Tool



Management of Performance Based Budgeting

■ Resolution Plan:

- **PPM: Enhanced Project Mgmt System (Spring '00)**
 - ▶ Activity Based & Personnel Scheduler
(New Activity Structure Developed)
 - ▶ Monitors Performance Against Schedule(s)
 - ▶ Rolls Projects Up To Program(s)
 - ▶ NYDOT Free Transfer Of Core System
 - ▶ Contract: Software, Programming & Training



Management of Performance Based Budgeting

■ Resolution Plan:

- **MAP: Management Structure & System ('00)**
 - ▶ Level Of Maintenance Service
 - ▶ Activity Based (New Activity Structure Developed)
 - ▶ Resource Inclusive: People, Equipment & Supplies
 - ▶ VAOT Loan Of Core System
 - ▶ Developing Contract Needs



Management of Performance Based Budgeting

■ Resolution Plan:

- **FREE 2000: Front-end System (Jan '00)**
 - ▶ Paper Reduction & Process Improvement
(Paper Handling & Single Point Of Entry)
 - ▶ Data Collection & Editing At Source
 - ▶ Time & Attendance, Expense Reimbursement
& Invoice Processor
 - ▶ In-house Developed, WEB Based
- ◆ **Issues:**
 - Document Storage & Post Audits
 - WEB Reliability & Backup Process



Management of Performance Based Budgeting

■ Resolution Plan:

- TIDE II: Enhanced GIS Linked Data Warehouse (?)
 - ▶ Tie-in With PPM & MAP
 - ▶ Electronic Update Mechanisms
 - ▶ Additional Data Sources



Management of Performance Based Budgeting

■ Resolution Plan:

● Technology Improvements:

- ▶ All Knowledge Workers Have Access
- ▶ Standard Software & Hardware
- ▶ Users Trained
- ▶ Replacement Schedules
- ▶ Redundancy In LAN



Management of Performance Based Budgeting

- **Providing Tools & Information!**
- **No Absolute Right Answer!**
- **People Manage Resources!**
- **A Journey!**